

INTERNATIONAL SEARCH REPORT

International application No.

PCT/SG2004/000333

A. CLASSIFICATION OF SUBJECT MATTER

Int. Cl. ⁷: G11C 11/15

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
DWPI: IPC G11C 11/15 and keywords: magnetoresistive random access memory, synthetic antiferromagnetic pinned, layer, heat, thermal, ferromagnetic, antiferromagnetic, pinned and similar terms

C. DOCUMENTS CONSIDERED TO BE RELEVANT

| Category* | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
|-----------|--|-----------------------|
| P, A | US 6728132 B (DEAK) 27 April 2004 Entire document | 1-21 |
| P, A | US 2003/0198113 A (ABRAHAM et al.) 23 October 2003 Entire document | 1-21 |
| A | US 2002/0089874 A (NICKEL et al.) 11 July 2002 Entire document | 1-21 |
| A | US 6418048 B (SIN et al.) 9 July 2002 Entire document | 1-21 |

Further documents are listed in the continuation of Box C

See patent family annex

| | |
|--|--|
| * Special categories of cited documents: | |
| "A" | document defining the general state of the art which is not considered to be of particular relevance |
| "T" | later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention |
| "E" | earlier application or patent but published on or after the international filing date |
| "X" | document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone |
| "L" | document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) |
| "Y" | document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art |
| "O" | document referring to an oral disclosure, use, exhibition or other means |
| "&" | document member of the same patent family |
| "P" | document published prior to the international filing date but later than the priority date claimed |

Date of the actual completion of the international search
17 December 2004

Date of mailing of the international search report

06 JAN 2005

Name and mailing address of the ISA/AU

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| C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT | | |
|---|--|-----------------------|
| Category* | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
| A | US 6385082 B (ABRAHAM et al.) 7 May 2002 Entire document | 1-21 |

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INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No.

PCT/SG2004/000333

This Annex lists the known "A" publication level patent family members relating to the patent documents cited in the above-mentioned international search report. The Australian Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

| Patent Document Cited in Search Report | | Patent Family Member | | | | | |
|--|------------|----------------------|------------|----|------------|----|------------|
| US | 6728132 | US | 2003189842 | US | 2004152218 | WO | 03085674 |
| US | 2003198113 | WO | 03092014 | | | | |
| US | 2002089874 | CN | 1365117 | EP | 1225592 | JP | 2002245774 |
| | | US | 2003123282 | | | | |
| US | 6418048 | NONE | | | | | |
| US | 6385082 | NONE | | | | | |

Due to data integration issues this family listing may not include 10 digit Australian applications filed since May 2001.

END OF ANNEX

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